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<u>Amendments to the Claims</u>:

This listing of claims replaces all prior versions and listings of claims in the application:

<u>Listing of Claims</u>:

1. (Withdrawn) A method. executed in a computer based travel-planning-system, the method comprising:

receiving trip segments;

determining constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from properties of fares that can be used with the flights with determining constraints further comprising:

iterating over the trip segment and for a trip segment retrieving a "through fare" for that trip segment;

retrieving a routing corresponding to the through fare;

generating flight combinations that are constrained by the routing to provide an itinerary; and

pricing the itinerary.

2. (Withdrawn) The method of claim 1 wherein the constraints are on flights.

3. (Withdrawn) The method of claim 1 wherein the constraints are on itineraries.

4. (Withdrawn) The method of claim 1 wherein the fares are fares between endpoints of trip segments.

5. (Withdrawn) The method of claim 1 further comprising:

generating flight combinations that are unconstrained by the fare routings based on the original query information for the trip segment; and wherein pricing comprises:

pricing the determined constrained flight combinations and unconstrained flight combinations.

6. (Withdrawn) The method of claim 1 wherein generating provides itineraries for a complete trip.

7. (Withdrawn) The method of claim 1 wherein generating provides itineraries separately for each trip segment.

8. (Withdrawn) The method of claim 1 wherein constraints are based on fare routings.

9. (Withdrawn) The method of claim 1 wherein constraints are based on fare carrier.

10. (Withdrawn) The method of claim 1 wherein constraints are based on fare global indicator.

11. (Withdrawn) The method of claim 1 wherein constraints are based on fare maximum permitted mileage.

12. (Withdrawn) The method of claim 1 wherein the constraints are restrictions on individual flights used in itineraries.

13. (Withdrawn) The method of claim 1 wherein constraints are constraints on airline and origin and destination triples.

14. (Withdrawn) The method of claim 1 wherein constraints are restrictions on flight origin and destination.

15. (Withdrawn) The method of claim 1 further comprising:

choosing constraints based on fare price.

16. (Withdrawn) The method of claim 1 further comprising:

generating additional itineraries from flights without considering the constraints.

17. (Withdrawn) The method of claim 1 wherein pricing further comprises:

pricing the itinerary generated without considering the constraints; and

returning both the priced itineraries generated with constraints and without considering constraints during pricing.

18. (Withdrawn) The method of claim 1 wherein pricing further comprises:

restricting pricing of itineraries based on the constraints used to produce the itineraries.

19. (Withdrawn) The method of claim 18 wherein restricting pricing of itineraries is based restrictions on the endpoints of fares considered during pricing.

20. (Withdrawn) The method of claim 1 further comprising:

generating additional itineraries from flights without considering the constraints;

pricing the itineraries from flights without considering the constraints and with considering the constraints; and

returning the priced itineraries.

21. (Currently Amended) A computer program product residing on a computer readable medium for producing itineraries comprises instructions for causing a computer to:

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receive trip segments;

determine constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from ~~properties of~~ fares between the end points of the trip segments, which ~~that~~ can be used with the flights to connect the end points of the trip segments;

generate itineraries ~~from~~ of sequences of flights using the constraints to select which flights to include in the sequences of flights of the generated itineraries; and

price the itineraries.

22. (Original) The computer program product of claim 21 wherein the constraints are on flights.

23. (Original) The computer program product of claim 21 wherein the constraints are on itineraries.

24. (Original) The computer program product of claim 21 wherein the fares are fares between endpoints of trip segments.

25. (Original) The computer program product of claim 21 wherein the fares are fares between points connected by single flights to endpoints of trip segments.

26. (Original) The computer program product of claim 21 wherein generating provides itineraries for a complete trip.

27. (Original) The computer program product of claim 21 wherein generating provides itineraries separately for each trip segment.

28. (Original) The computer program product of claim 21 wherein constraints are based on fare routings.

29. (Original) The computer program product of claim 21 wherein constraints are based on fare carrier.

30. (Original) The computer program product of claim 21 wherein constraints are based on fare global indicator.

31. (Original) The computer program product of claim 21 wherein constraints are based on fare maximum permitted mileage.

32. (Original) The computer program product of claim 21 wherein the constraints are restrictions on individual flights used in itineraries.

33. (Original) The computer program product of claim 21 wherein constraints are constraints on airline and origin and destination triples.

34. (Original) The computer program product of claim 21 wherein constraints are restrictions on flight origin and destination.

35. (Original) The computer program product of claim 21 further comprising instructions to:
    choose constraints based on fare price.

36. (Previously Presented) The computer program product of claim 21 further comprising instructions to:
    generate additional itineraries from flights without considering the constraints.

37. (Currently Amended) The computer program product of claim 21 wherein instructions to price, prices the itineraries from flights by considering the constraints and wherein instructions to price further comprises instructions to:

price ~~the~~ additional itineraries generated without considering the constraints; and

return the additional priced itineraries.

38. (Original) The computer program product of claim 21 wherein instructions to price further comprises instructions to:

restrict pricing of itineraries based on the constraints used to produce the itineraries.

39. (Previously Presented) The computer program product of claim 38 wherein instructions to price restricts pricing restrictions on the endpoints of fares considered during pricing.

40. (Currently Amended) The computer program product of claim 21 further comprises instructions to:

generate additional itineraries from flights without considering the constraints;

price the additional itineraries from flights without considering the constraints and with considering the constraints; and

return the priced additional itineraries.

41. (Currently Amended) Apparatus comprising:

a processor;

a memory for executing a computer program product; and

a computer readable medium storing the computer program product for producing itineraries comprises instructions for causing the processor to:

receive trip segments;

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determine constraints on sequences of flights between the endpoints of the trip segments, the constraints derived from ~~properties of~~ fares between the end points of the trip segments, which ~~that~~ can be used with the flights;

generate itineraries ~~from~~ of sequences of flights using the constraints to select which flights to include in the sequences of flights of the generated itineraries; and

price the itineraries.

42. (Original) The apparatus of claim 41 wherein the constraints are on flights.

43. (Original) The apparatus of claim 41 wherein the constraints are on itineraries.

44. (Original) The apparatus of claim 41 wherein the fares are fares between endpoints of trip segments.

45. (Original) The apparatus of claim 41 wherein the fares are fares between points connected by single flights to endpoints of trip segments.

46. (Original) The apparatus of claim 41 wherein constraints are based on fare routings.

47. (Original) The apparatus of claim 41 wherein constraints are based on fare carrier.

48. (Original) The apparatus of claim 41 wherein constraints are based on fare global indicator.

49. (Original) The apparatus of claim 41 wherein constraints are based on fare maximum permitted mileage.

50. (Original) The apparatus of claim 41 wherein constraints are constraints on airline and origin and destination triples.

51. (Original) A computer program product residing on a computer readable medium for producing itineraries comprises instructions for causing a computer to:

receive trip segments;

determine geographic and airline constraints derived from available fares ~~rules~~ to control the manner in which flights are combined prior to ~~the~~ evaluation of fare rules; and

generate itineraries by using the constraints.

52. (Original) The computer program product of claim 51 wherein the constraints are on flights.

53. (Original) The computer program product of claim 51 wherein the constraints are on itineraries.

54. (Original) The computer program product of claim 51 wherein constraints are based on fare routings.

55. (Original) The computer program product of claim 51 wherein the constraints are restrictions on individual flights used in itineraries.

56. (Original) The computer program product of claim 51 wherein constraints are constraints on airline and origin and destination triples.

57. (Currently Amended) A computer-implemented method for producing itineraries compris[[es]]ing:

receiving, by a computer, trip segments;

determining, by a computer, geographic and airline constraints derived from available fares rules to control the manner in which flights are combined prior to the evaluation of fare rules; and

generating itineraries by using the constraints.

58. (Original) The method of claim 57 wherein the constraints are on flights.

59. (Original) The method of claim 57 wherein the constraints are on itineraries.

60. (Original) The method of claim 57 wherein constraints are based on fare routings.

61. (Original) The method of claim 57 wherein the constraints are restrictions on individual flights used in itineraries.

62. (Original) The method of claim 57 wherein constraints are constraints on airline and origin and destination triples.

63. (Currently Amended) A computer program product residing on a computer readable medium for producing itineraries comprises instructions for causing a computer to:

receive trip segments;

determine constraints on sequences of flights, between the endpoints of the trip segments the constraints derived from properties of fares between the end points of the trip segments, which that can be used with the flights; and

generate itineraries of sequences of flights constrained by multiple constraints that are derived from a diverse set of fares in order to increase the diversity of generated itineraries using the multiple constraints to select which flights to include in the sequences of flights of the generated itineraries; and

return at least some of the generated itineraries to a user.

64. (Original) The computer program product of claim 63 wherein the fares are chosen to include multiple airlines.

65. (Original) The computer program product of claim 63 wherein the fares are chosen to include multiple origins.

66. (Original) The computer program product of claim 63 wherein the fares are chosen to include multiple destinations.

67. (Original) The computer program product of claim 63 wherein the fares are chosen to include multiple origin-destination pairs.

68. (Currently Amended) A computer-implemented method for producing itineraries compris[[es]]ing:

    receiving, by a computer, trip segments;

    determining, by a computer, constraints on sequences of flights, between the endpoints of the trip segments the constraints derived from properties of fares between the end points of the trip segments, which that can be used with the flights to connect the end points of the trip segments; and

    generating itineraries of sequences of flights constrained by multiple constraints that are derived from a diverse set of fares in order to increase the diversity of generated itineraries using the multiple constraints to select which flights to include in the sequences of flights of the generated itineraries; and

    returning at least some of the generated itineraries to a user.

69. (Original) The method of claim 68 wherein the fares are chosen to include multiple airlines.

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70. (Original) The method of claim 68 wherein the fares are chosen to include multiple origins.

71. (Original) The method of claim 68 wherein the fares are chosen to include multiple destinations.

72. (Original) The method of claim 68 wherein the fares are chosen to include multiple origin-destination pairs.

73. (Currently Amended) The method of claim [[1]] 68 where fares are filtered based on properties of the fare rules.

74. (Original) The method of claim 73 where fares fail if aspects of the fare's rules are violated.

75. (Original) The method of claim 74 where the aspects are the fare's effective and discontinue dates.

76. (Original) The method of claim 74 where the aspects are the fare's rules that limit at least one of travel dates and travel times.